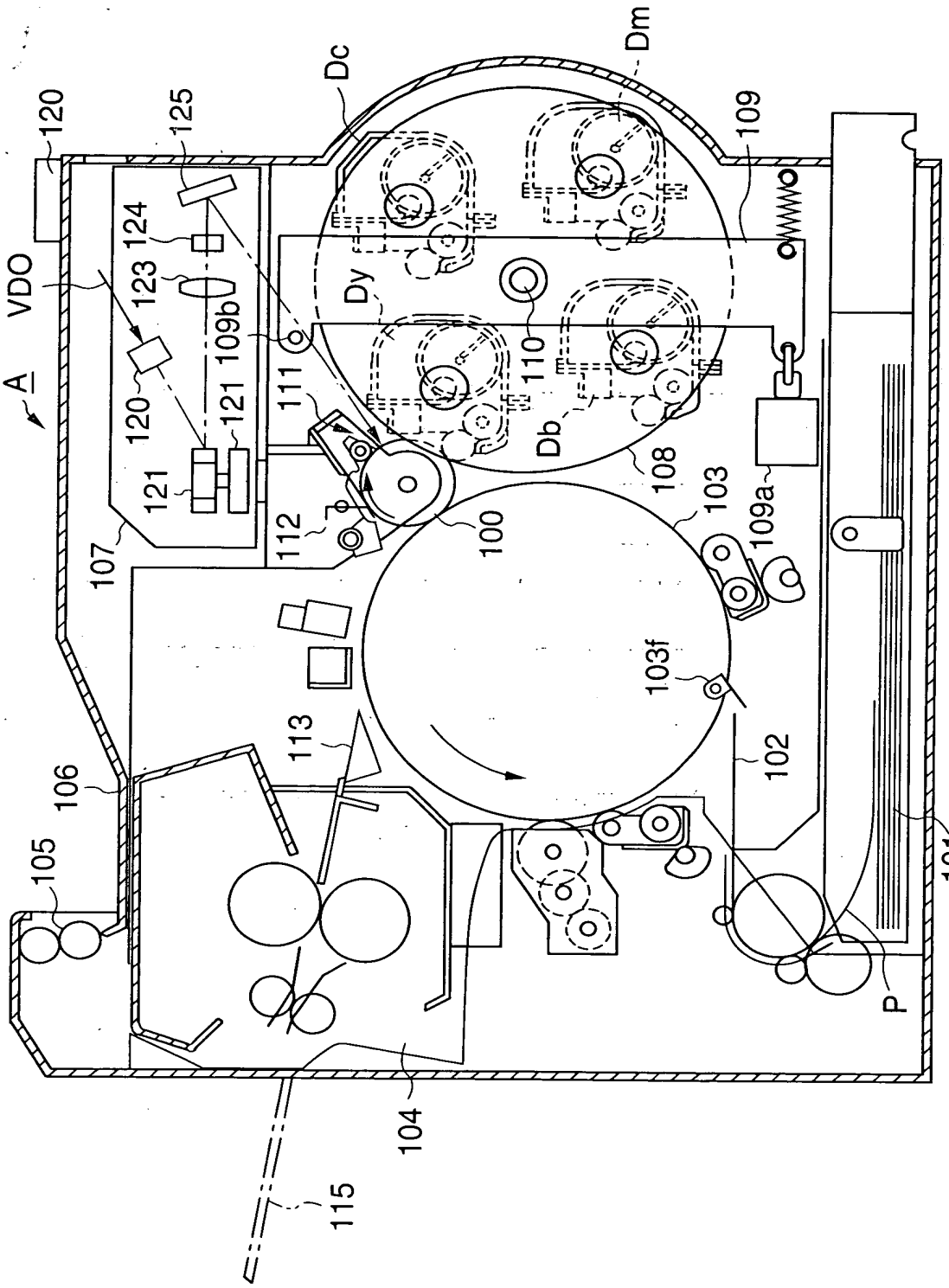
FIG. 1


A
VDO
120
125
124
123
109b
121
120
121
111
107
112
100
Dc
Dm
109
Dy
110
Db
108
103
109a
103f
102
113
106
105
101
P
104
115

0062601 "TS/960

FIG. 2

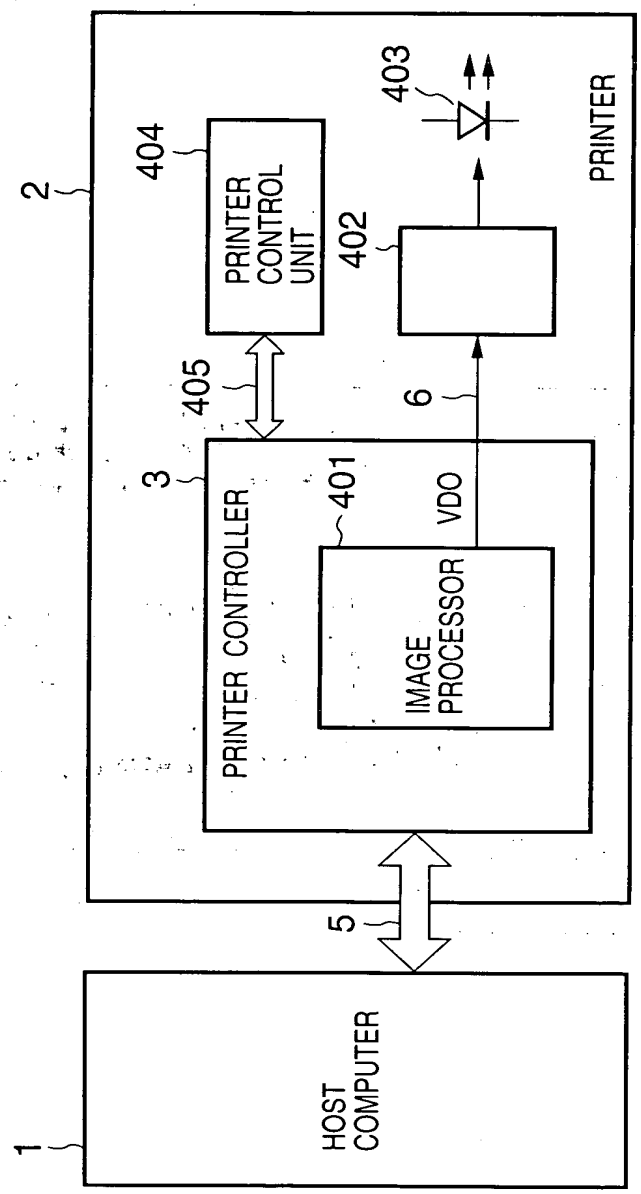


FIG. 3

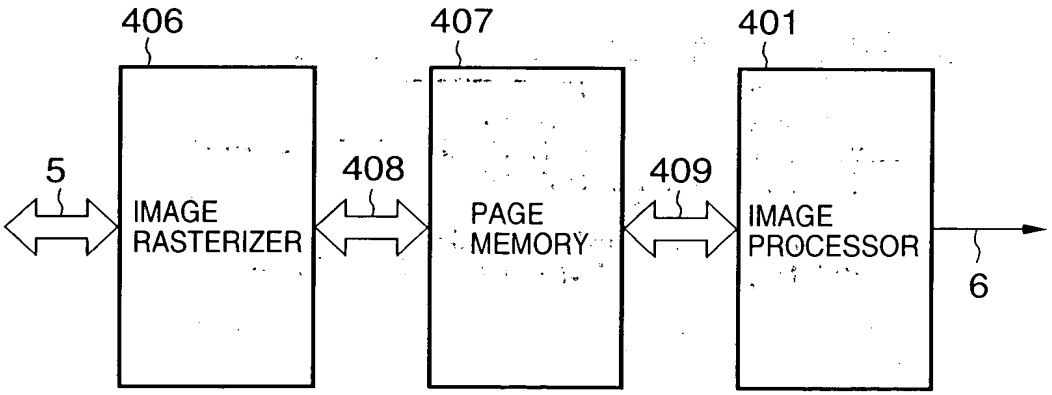

406
407
401
5
408
409
IMAGE RASTERIZER
PAGE MEMORY
IMAGE PROCESSOR
6

FIG. 4

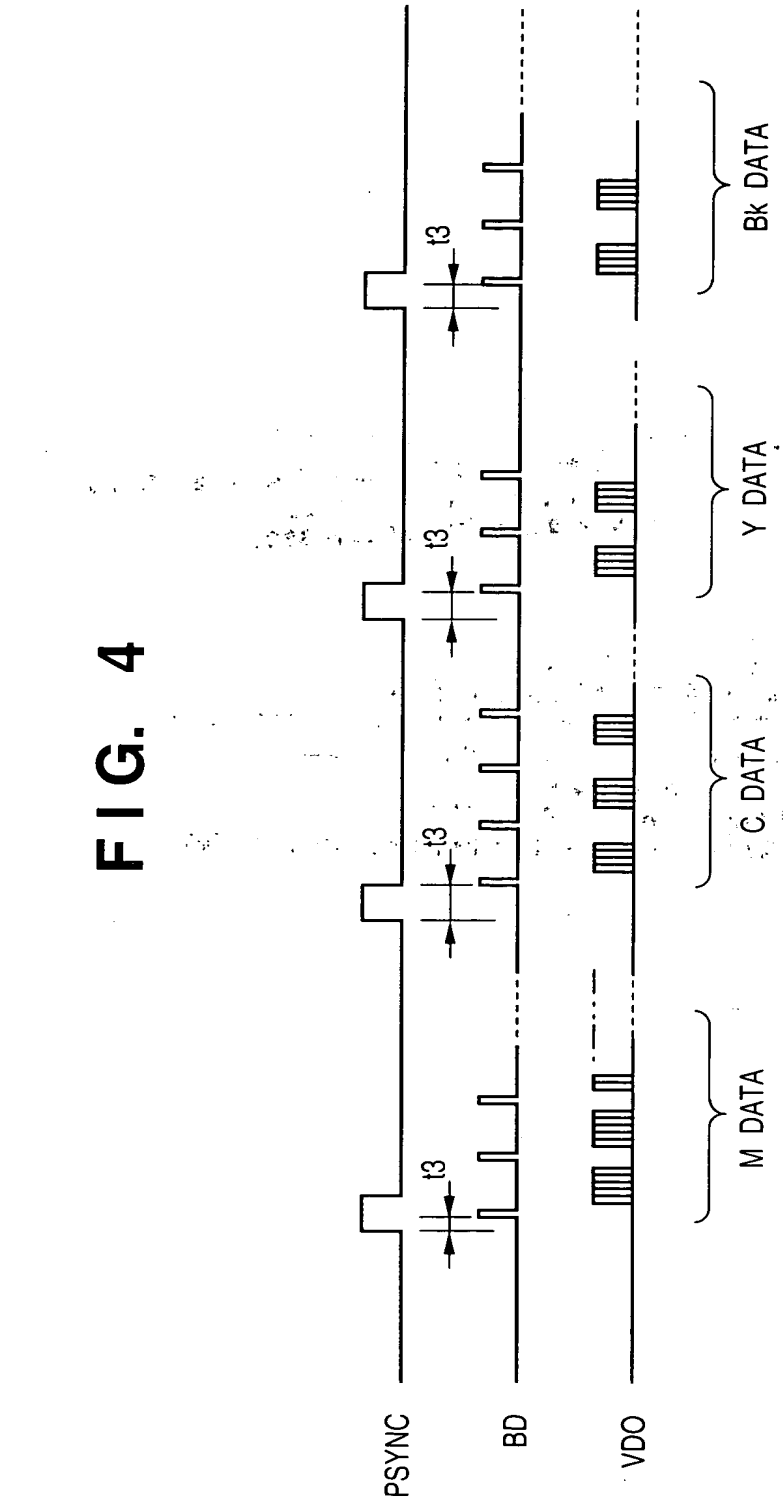


FIG. 5

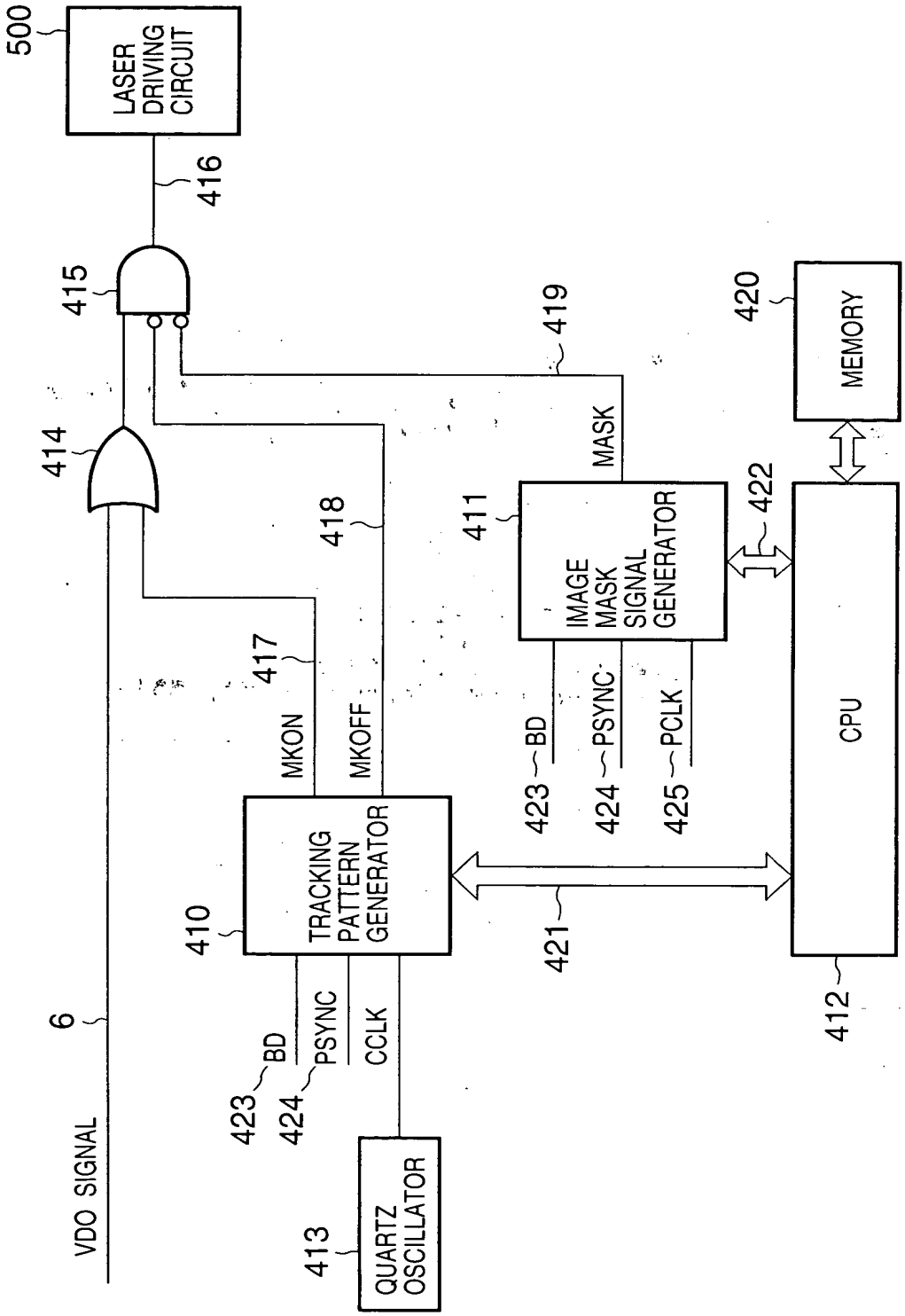

500
LASER DRIVING CIRCUIT
416
415
414
419
420
MEMORY
MASK
418
411
IMAGE MASK SIGNAL GENERATOR
422
CPU
417
MKON
MKOFF
423
BD
424
PSYNC
425
PCLK
410
TRACKING PATTERN GENERATOR
421
412
6
VDO SIGNAL
423
BD
424
PSYNC
CCLK
413
QUARTZ OSCILLATOR

FIG. 6

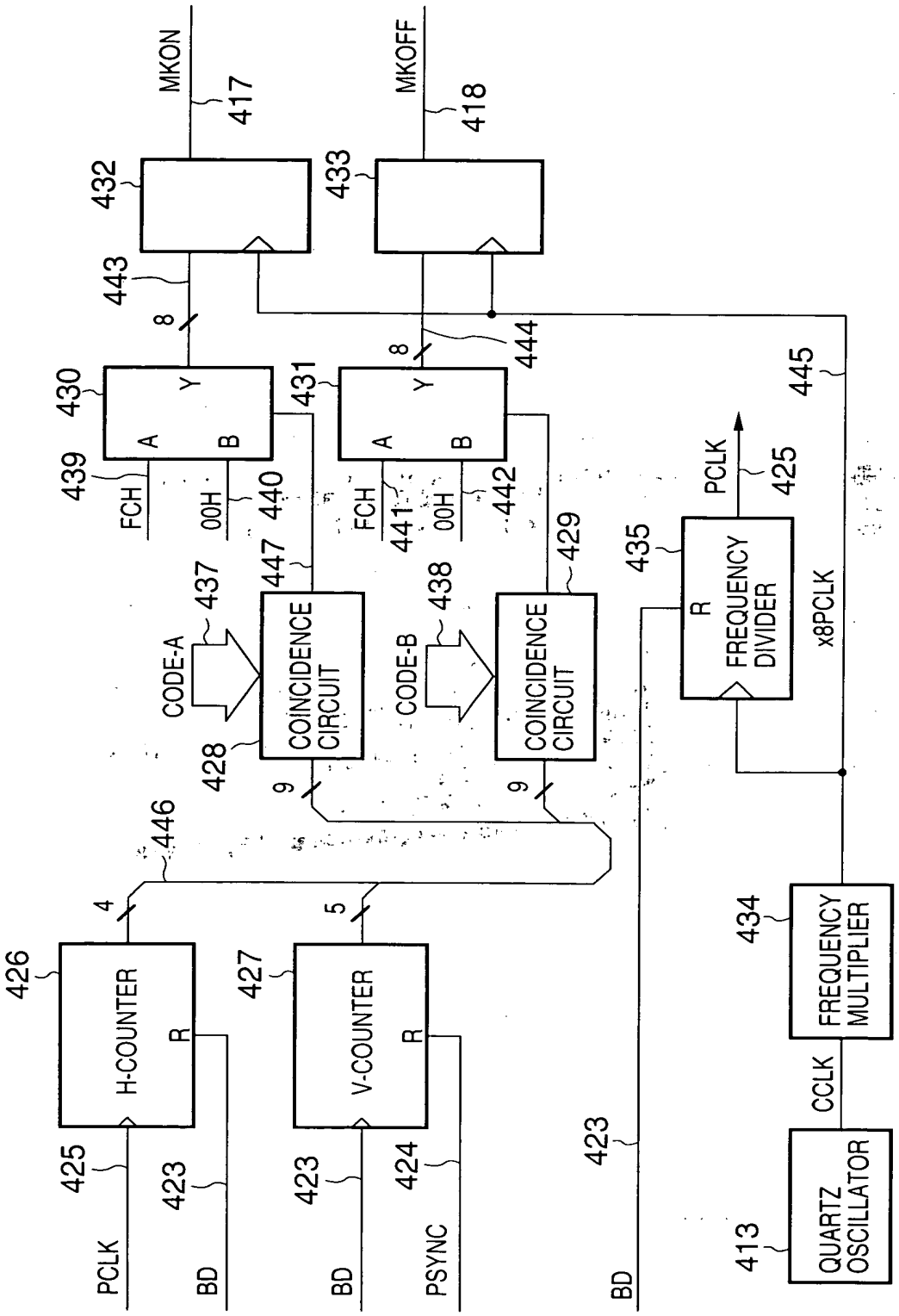

MKON
417
MKOFF
418
432
433
443
8
444
430
431
Y
A
B
439
FCH
00H
440
441
442
445
PCLK
425
435
R
FREQUENCY DIVIDER
x8PCLK
CODE-A
437
CODE-B
438
COINCIDENCE CIRCUIT
447
428
429
9
446
4
5
426
427
H-COUNTER
V-COUNTER
R
425
423
424
PCLK
BD
PSYNC
434
FREQUENCY MULTIPLIER
CCLK
413
QUARTZ OSCILLATOR

FIG. 7

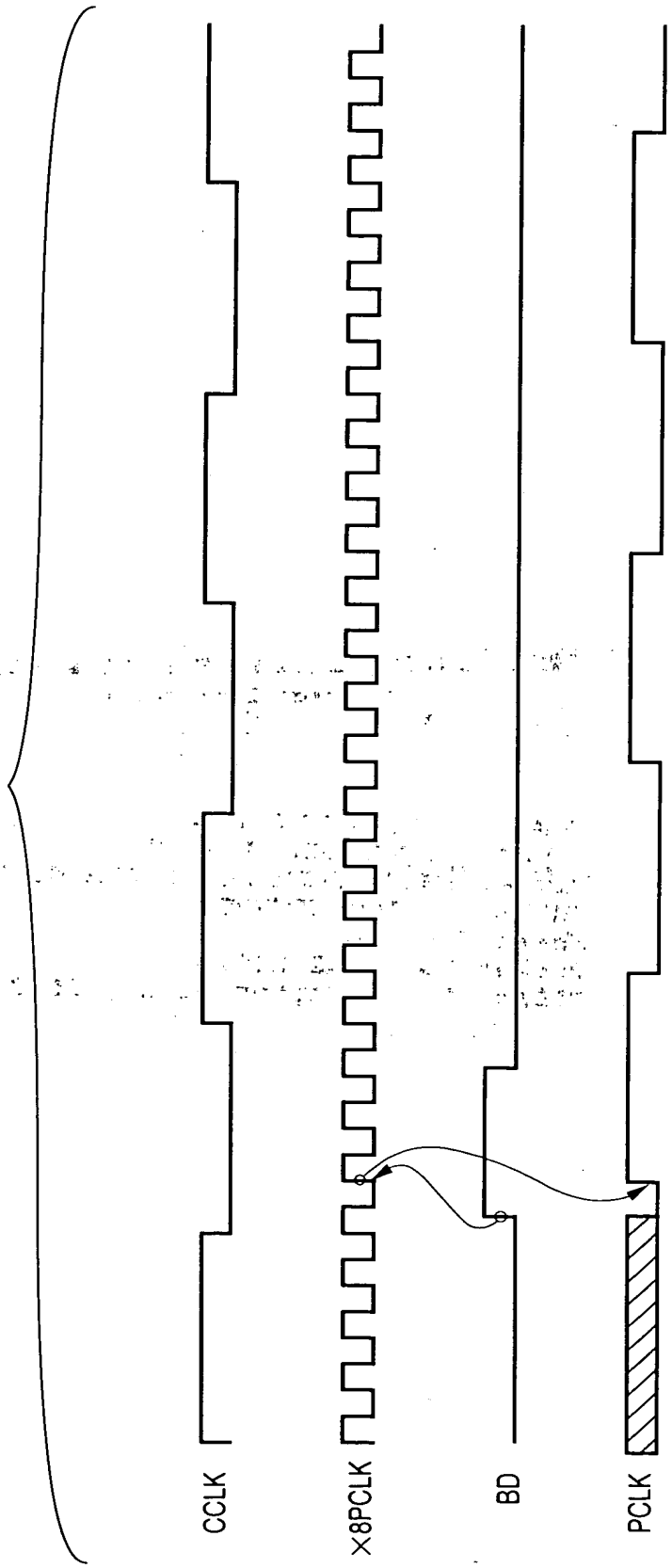


FIG. 8

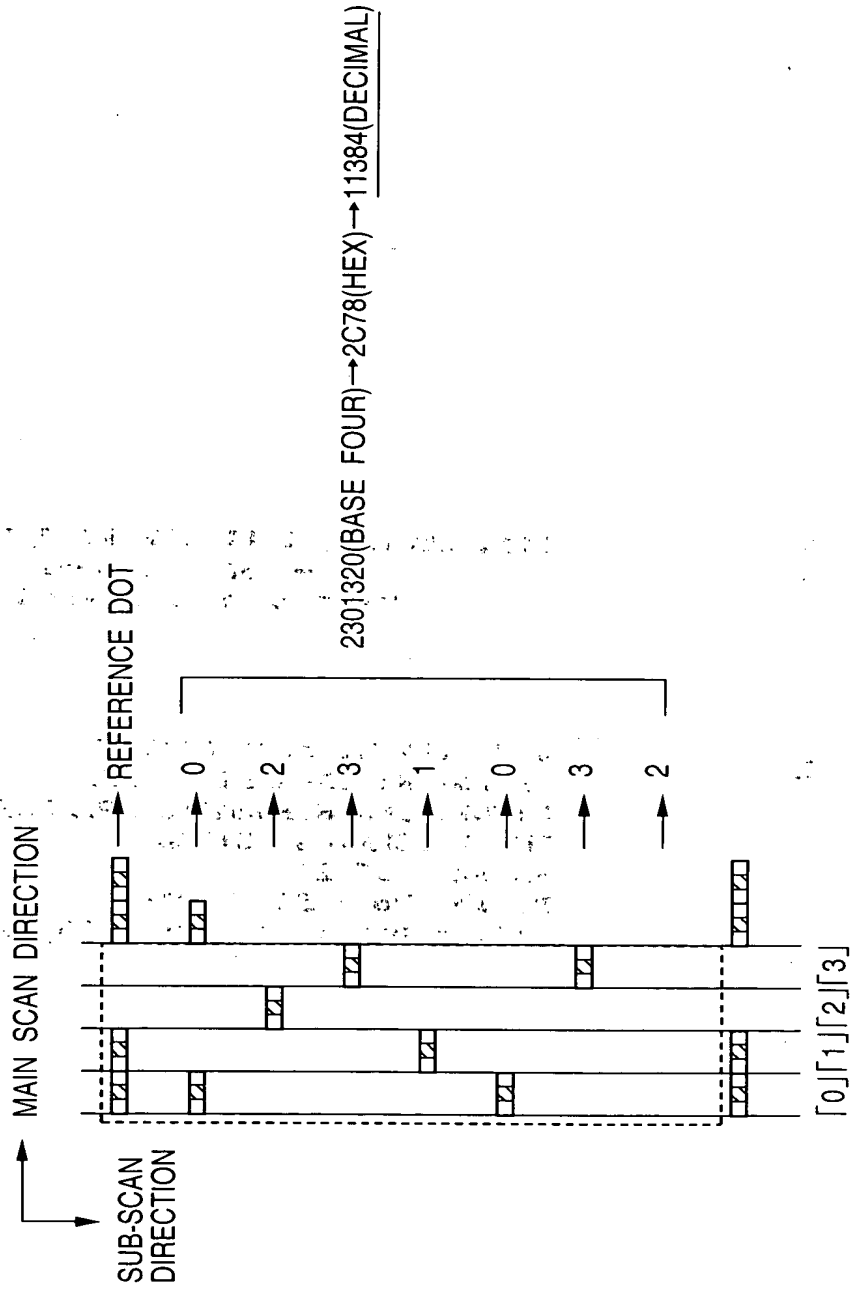

2301320(BASE FOUR)→2C78(HEX)→11384(DECIMAL)
REFERENCE DOT
0 2 3 1 0 3 2
MAIN SCAN DIRECTION
SUB-SCAN DIRECTION
[0] [1] [2] [3]

FIG. 9

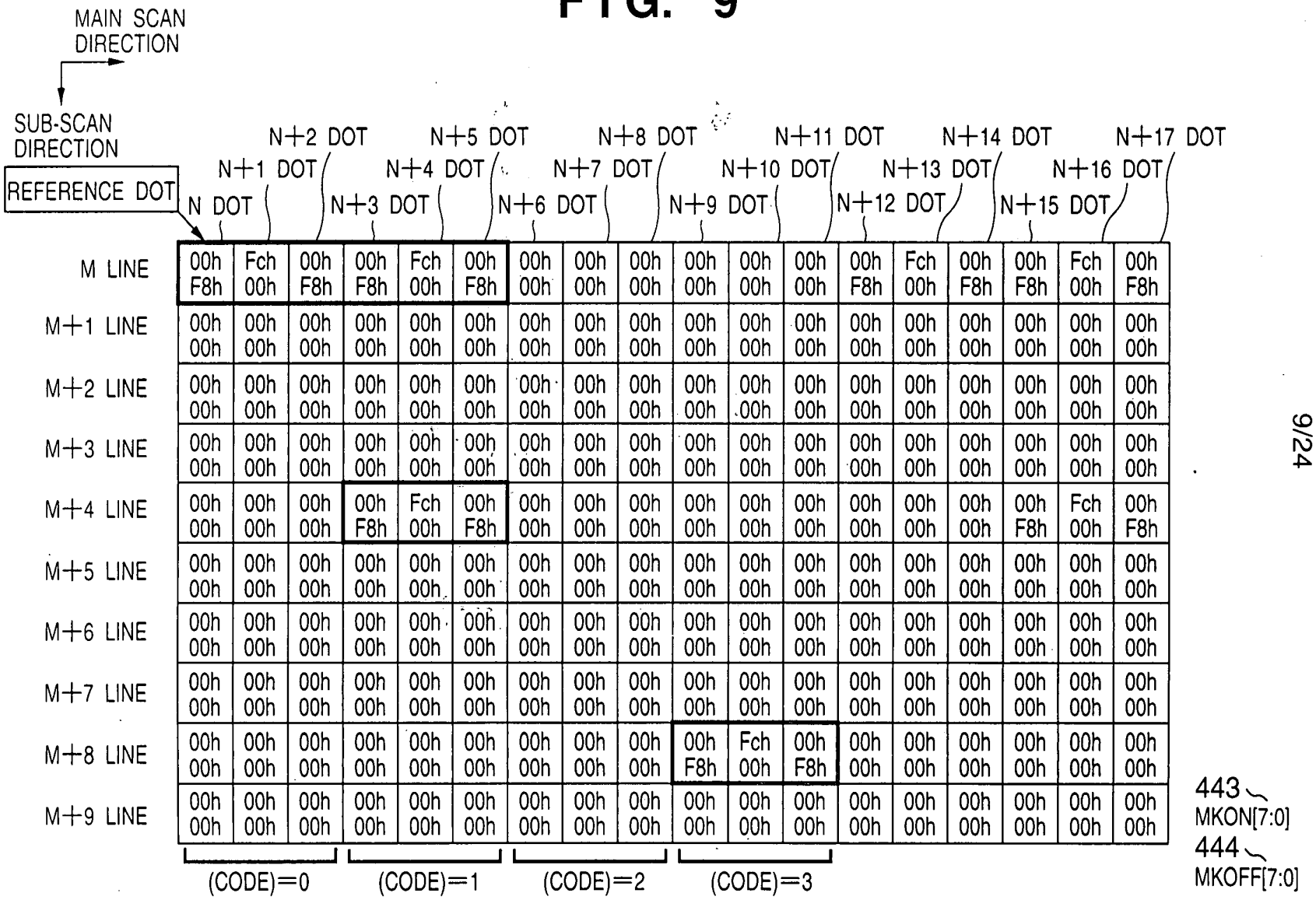

MAIN SCAN DIRECTION
SUB-SCAN DIRECTION
REFERENCE DOT
N DOT
N+1 DOT
N+2 DOT
N+3 DOT
N+4 DOT
N+5 DOT
N+6 DOT
N+7 DOT
N+8 DOT
N+9 DOT
N+10 DOT
N+11 DOT
N+12 DOT
N+13 DOT
N+14 DOT
N+15 DOT
N+16 DOT
N+17 DOT
M LINE
M+1 LINE
M+2 LINE
M+3 LINE
M+4 LINE
M+5 LINE
M+6 LINE
M+7 LINE
M+8 LINE
M+9 LINE
(CODE)=0
(CODE)=1
(CODE)=2
(CODE)=3
443
MKON[7:0]
444
MKOFF[7:0]

FIG. 10

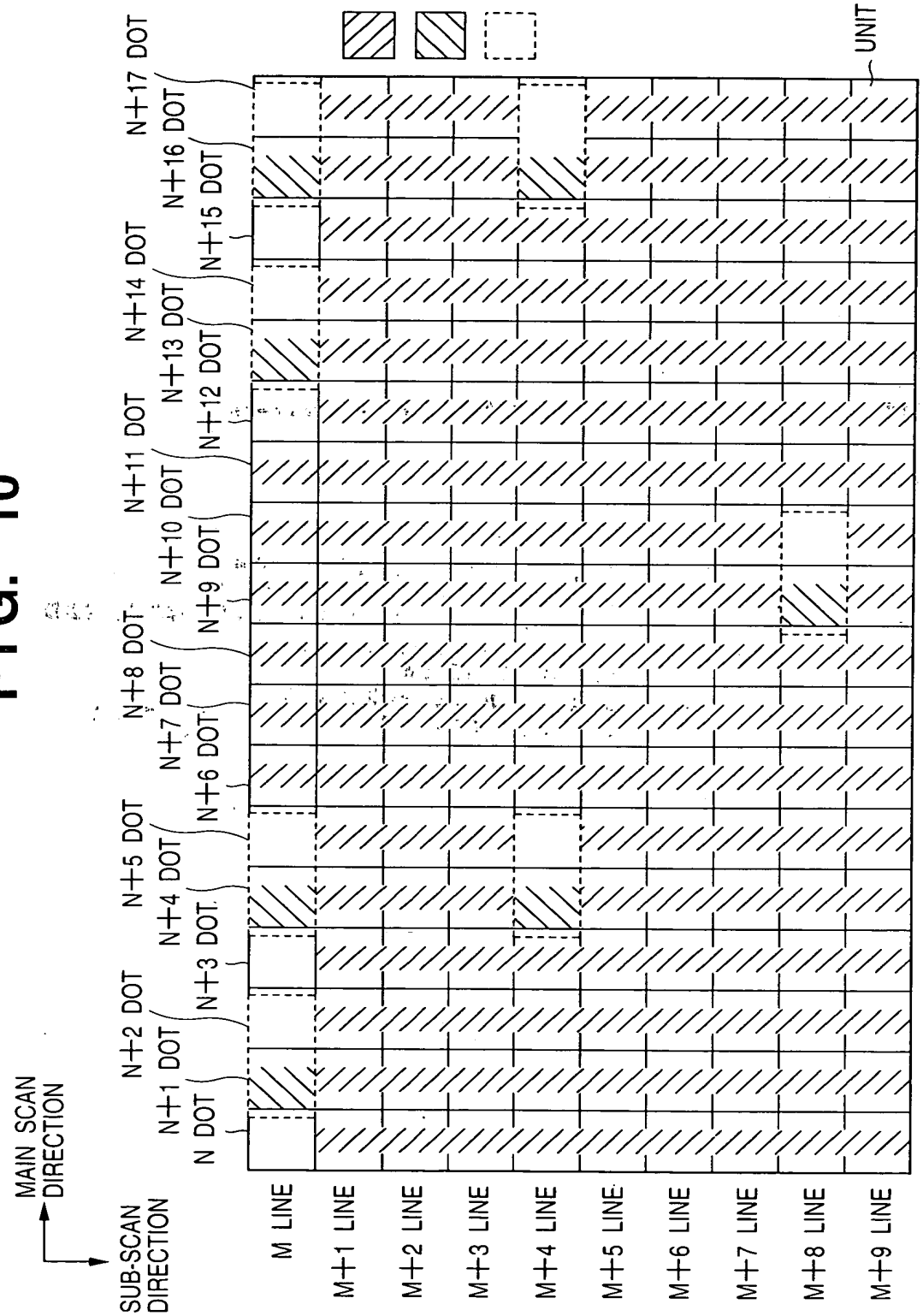

VDO DOT
TRACKING ON DOT
TRACKING OFF DOT
UNIT DOT
MAIN SCAN DIRECTION
SUB-SCAN DIRECTION
N DOT
N+1 DOT
N+2 DOT
N+3 DOT
N+4 DOT
N+5 DOT
N+6 DOT
N+7 DOT
N+8 DOT
N+9 DOT
N+10 DOT
N+11 DOT
N+12 DOT
N+13 DOT
N+14 DOT
N+15 DOT
N+16 DOT
N+17 DOT
M LINE
M+1 LINE
M+2 LINE
M+3 LINE
M+4 LINE
M+5 LINE
M+6 LINE
M+7 LINE
M+8 LINE
M+9 LINE

FIG. 11

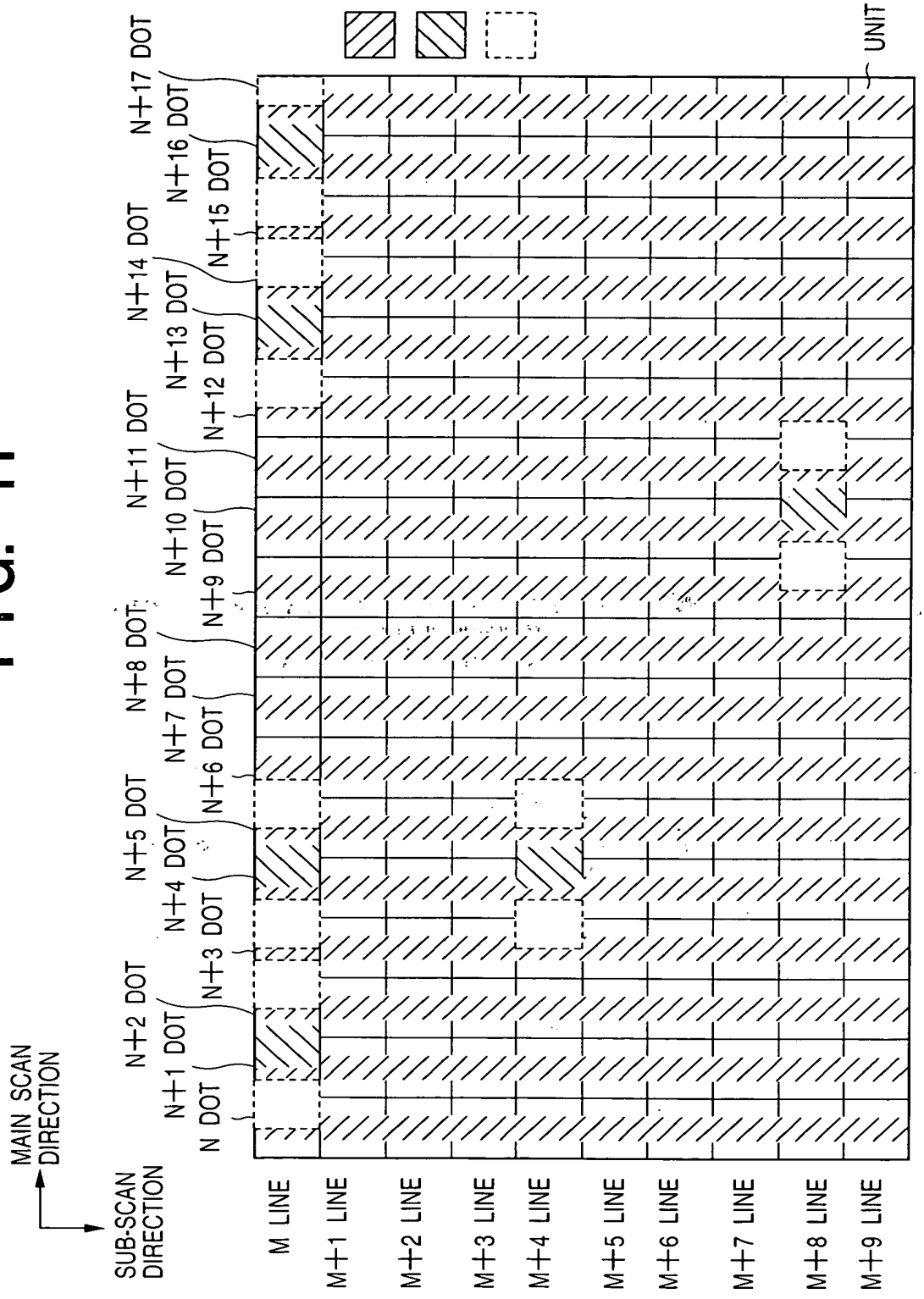

VDO DOT
TRACKING ON DOT
TRACKING OFF DOT
UNIT DOT
MAIN SCAN DIRECTION
SUB-SCAN DIRECTION
N DOT
N+1 DOT
N+2 DOT
N+3 DOT
N+4 DOT
N+5 DOT
N+6 DOT
N+7 DOT
N+8 DOT
N+9 DOT
N+10 DOT
N+11 DOT
N+12 DOT
N+13 DOT
N+14 DOT
N+15 DOT
N+16 DOT
N+17 DOT
M LINE
M+1 LINE
M+2 LINE
M+3 LINE
M+4 LINE
M+5 LINE
M+6 LINE
M+7 LINE
M+8 LINE
M+9 LINE

FIG. 12

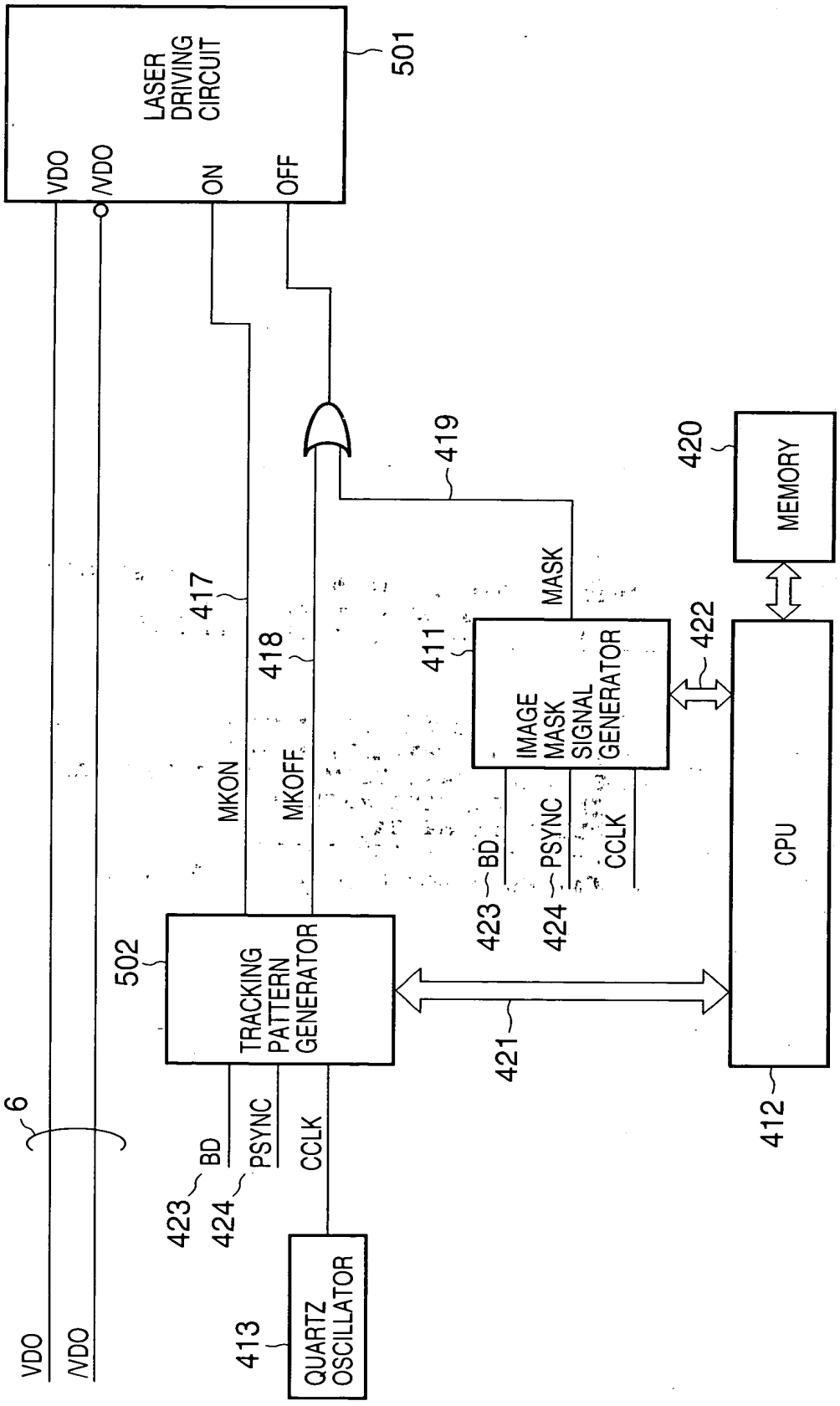

LASER DRIVING CIRCUIT
501
VDO
/VDO
ON
OFF
419
420
MEMORY
MASK
417
418
411
IMAGE MASK SIGNAL GENERATOR
422
MKON
MKOFF
BD
PSYNC
CCLK
423
424
CPU
502
TRACKING PATTERN GENERATOR
421
412
6
BD
PSYNC
CCLK
423
424
413
QUARTZ OSCILLATOR
VDO
/VDO

FIG. 13

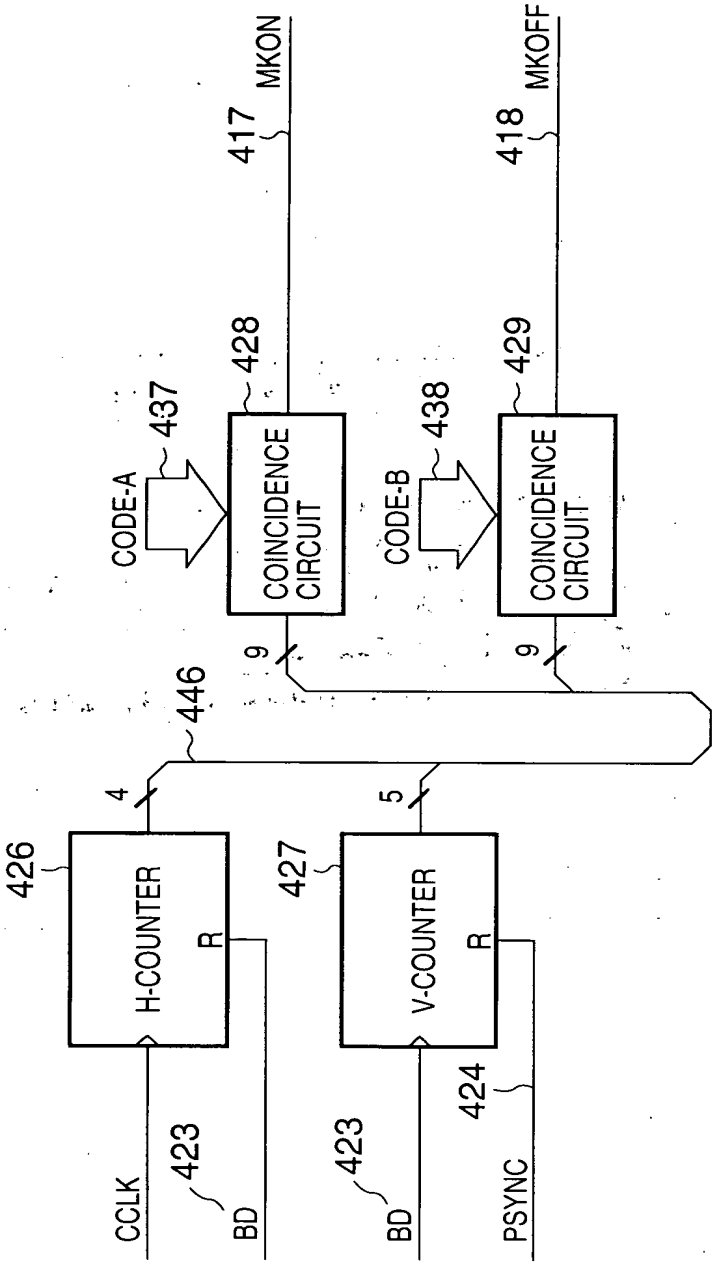

417
MKON
418
MKOFF
428
429
437
438
CODE-A
CODE-B
COINCIDENCE CIRCUIT
COINCIDENCE CIRCUIT
9
9
446
4
5
426
427
H-COUNTER
R
V-COUNTER
R
CCLK
423
BD
423
BD
424
PSYNC

FIG. 14

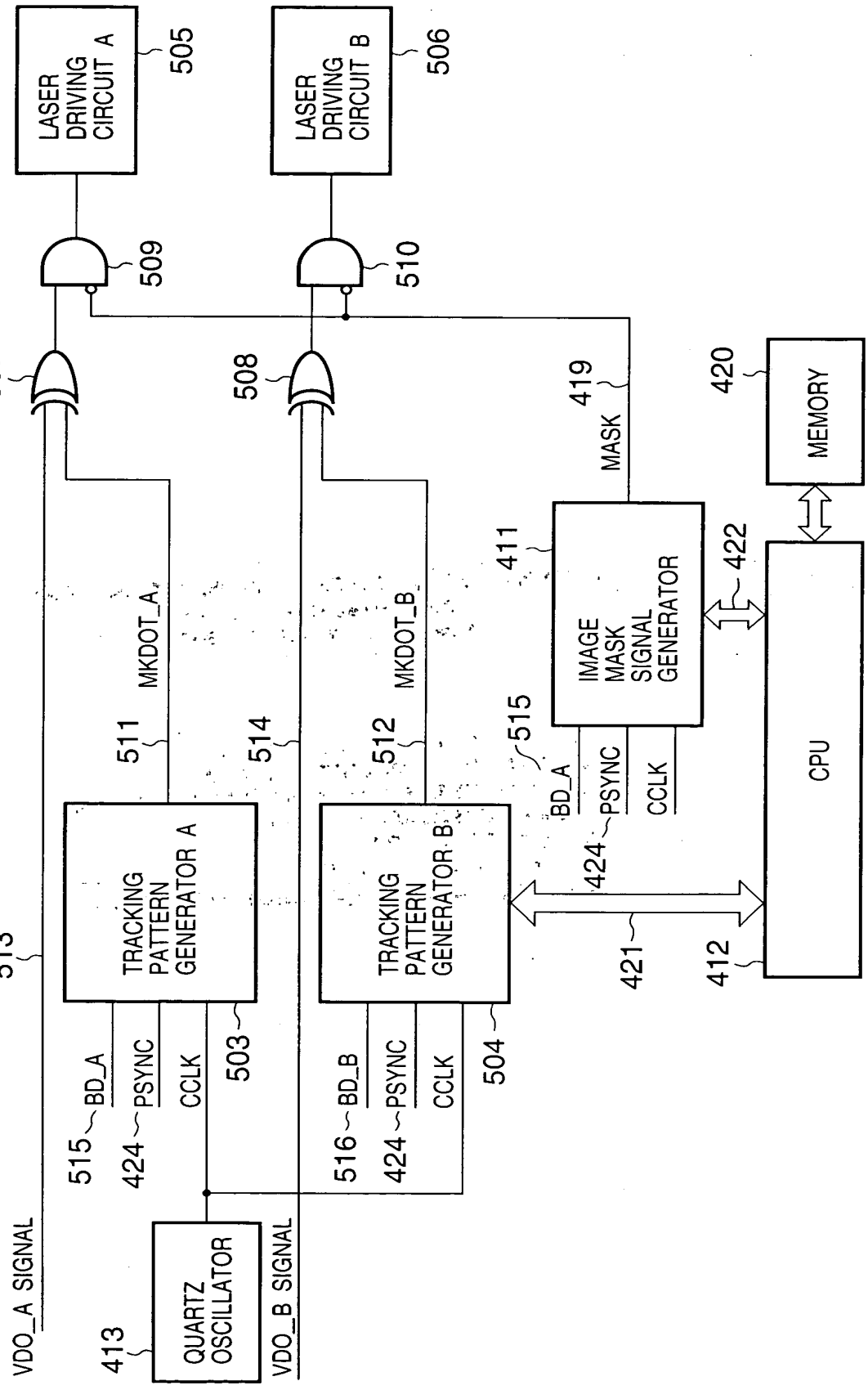

LASER DRIVING CIRCUIT A
505
LASER DRIVING CIRCUIT B
506
509
510
507
508
419
MASK
420
MEMORY
411
IMAGE MASK SIGNAL GENERATOR
422
CPU
511
MKDOT_A
514
MKDOT_B
512
515
BD_A
PSYNC
CCLK
424
421
412
TRACKING PATTERN GENERATOR A
TRACKING PATTERN GENERATOR B
513
503
504
516
VDO_A SIGNAL
VDO_B SIGNAL
413
QUARTZ OSCILLATOR

FIG. 15

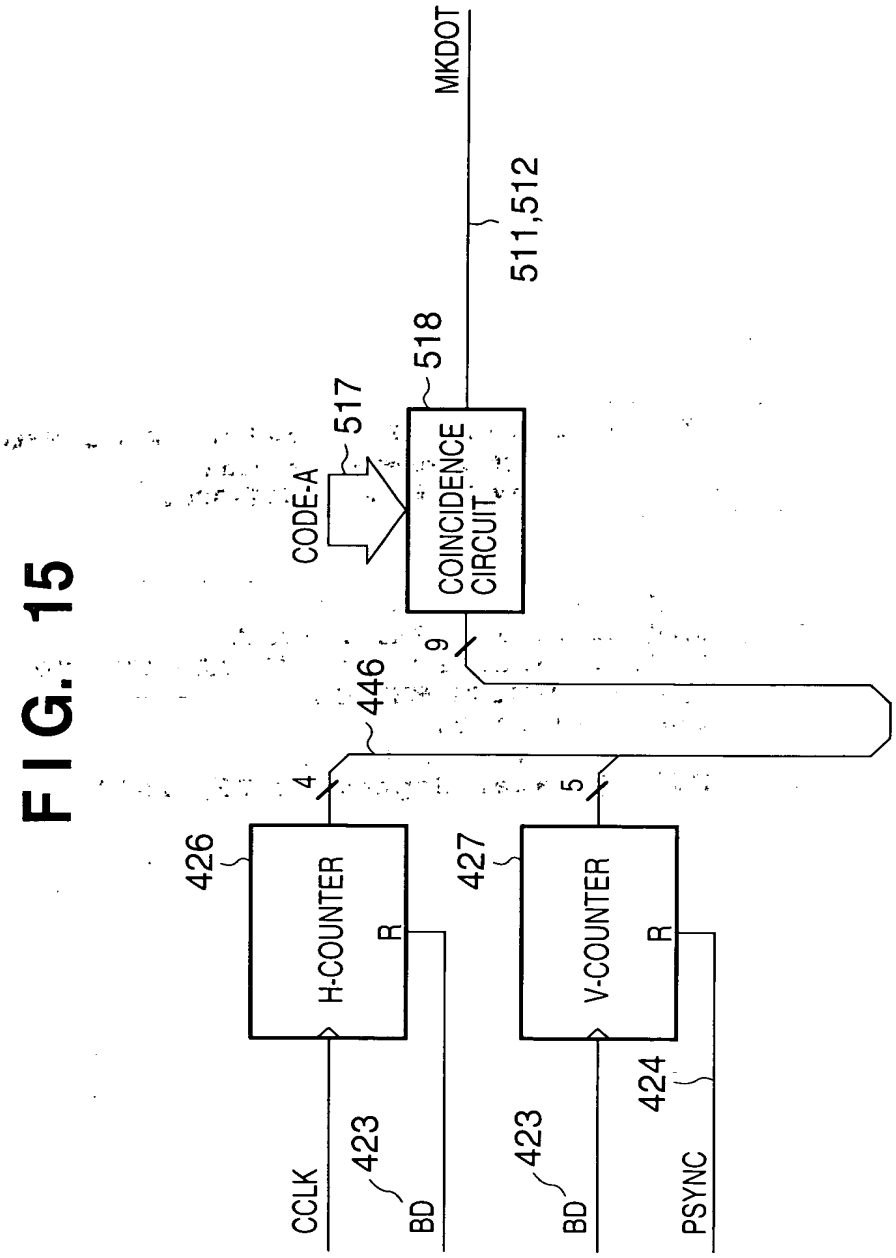

MKDOT
511,512
518
517
CODE-A
COINCIDENCE CIRCUIT
9
446
4
5
426
H-COUNTER
R
427
V-COUNTER
R
CCLK
423
BD
423
BD
424
PSYNC

FIG. 16

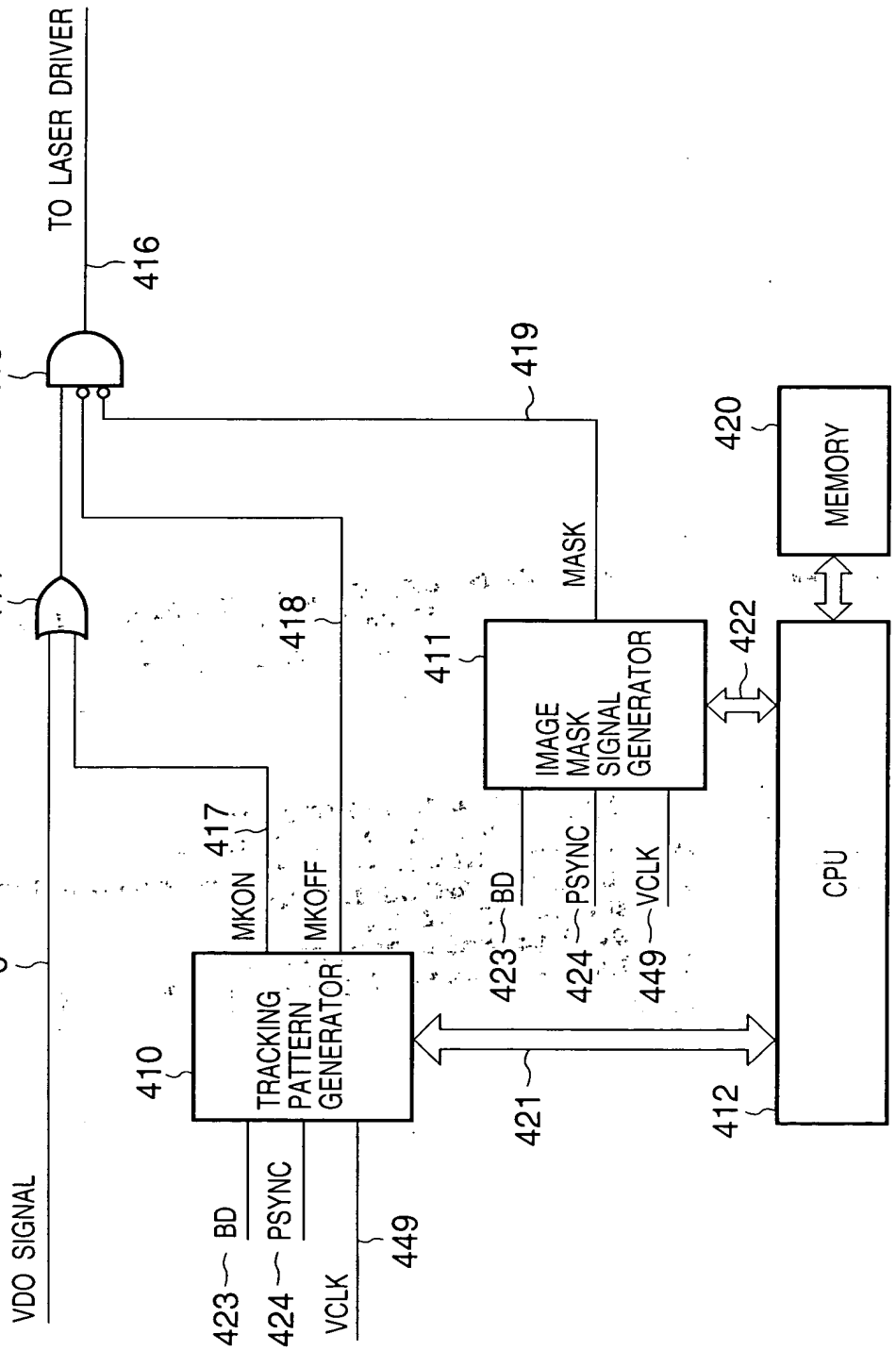

TO LASER DRIVER
416
415
419
420
MEMORY
414
MASK
418
411
IMAGE MASK SIGNAL GENERATOR
422
417
MKON
MKOFF
6
BD
PSYNC
VCLK
423
424
449
410
TRACKING PATTERN GENERATOR
CPU
421
412
VDO SIGNAL
423 BD
424 PSYNC
VCLK
449

FIG. 17

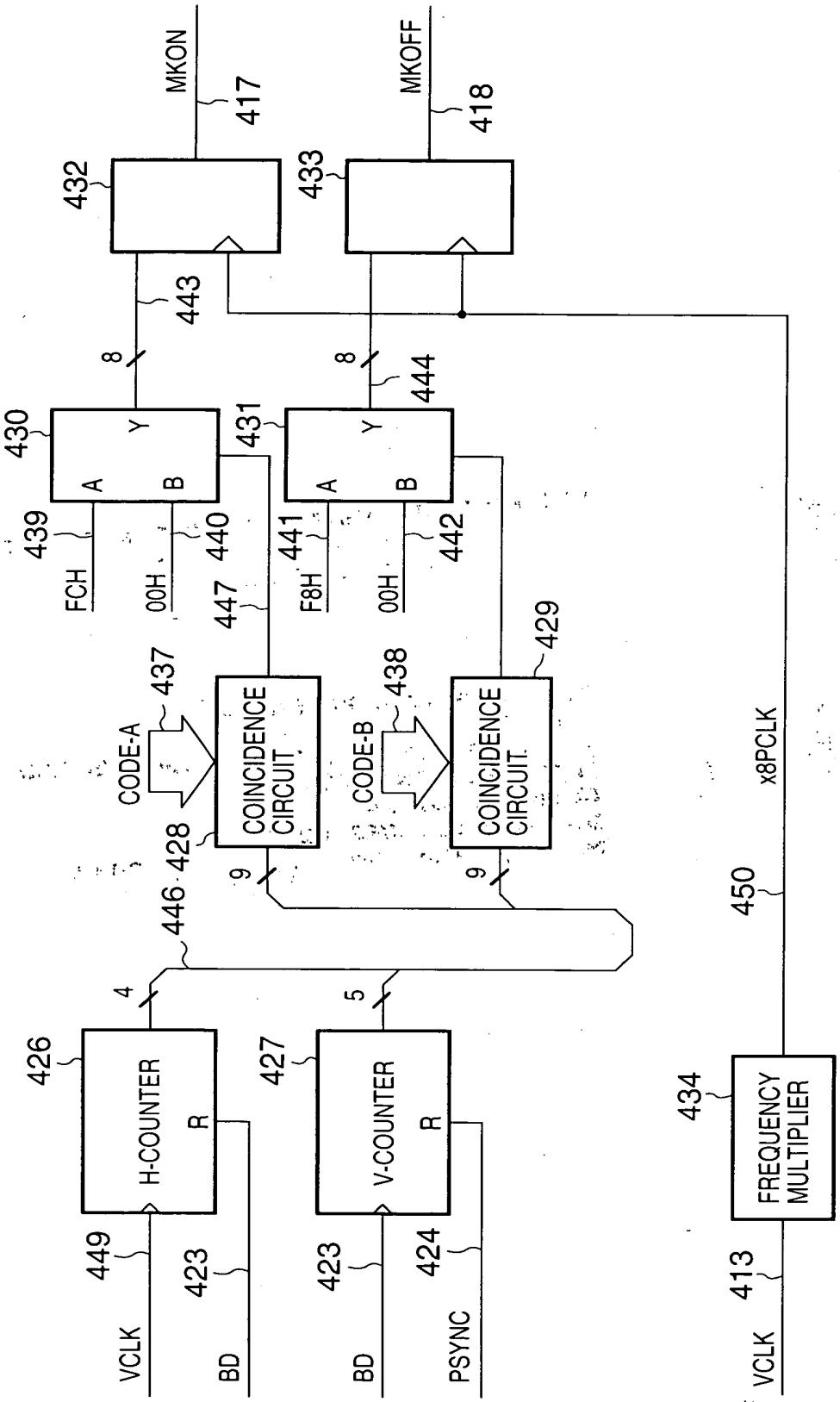

MKON
417
MKOFF
418
432
433
443
8
8
444
430
431
A
B
Y
439
FCH
00H
440
441
F8H
00H
442
447
CODE-A
437
CODE-B
438
COINCIDENCE CIRCUIT
COINCIDENCE CIRCUIT
429
428
9
9
446
450
x8PCLK
4
5
426
427
H-COUNTER
V-COUNTER
R
434
FREQUENCY MULTIPLIER
449
423
423
424
413
VCLK
BD
BD
PSYNC
VCLK

FIG. 18

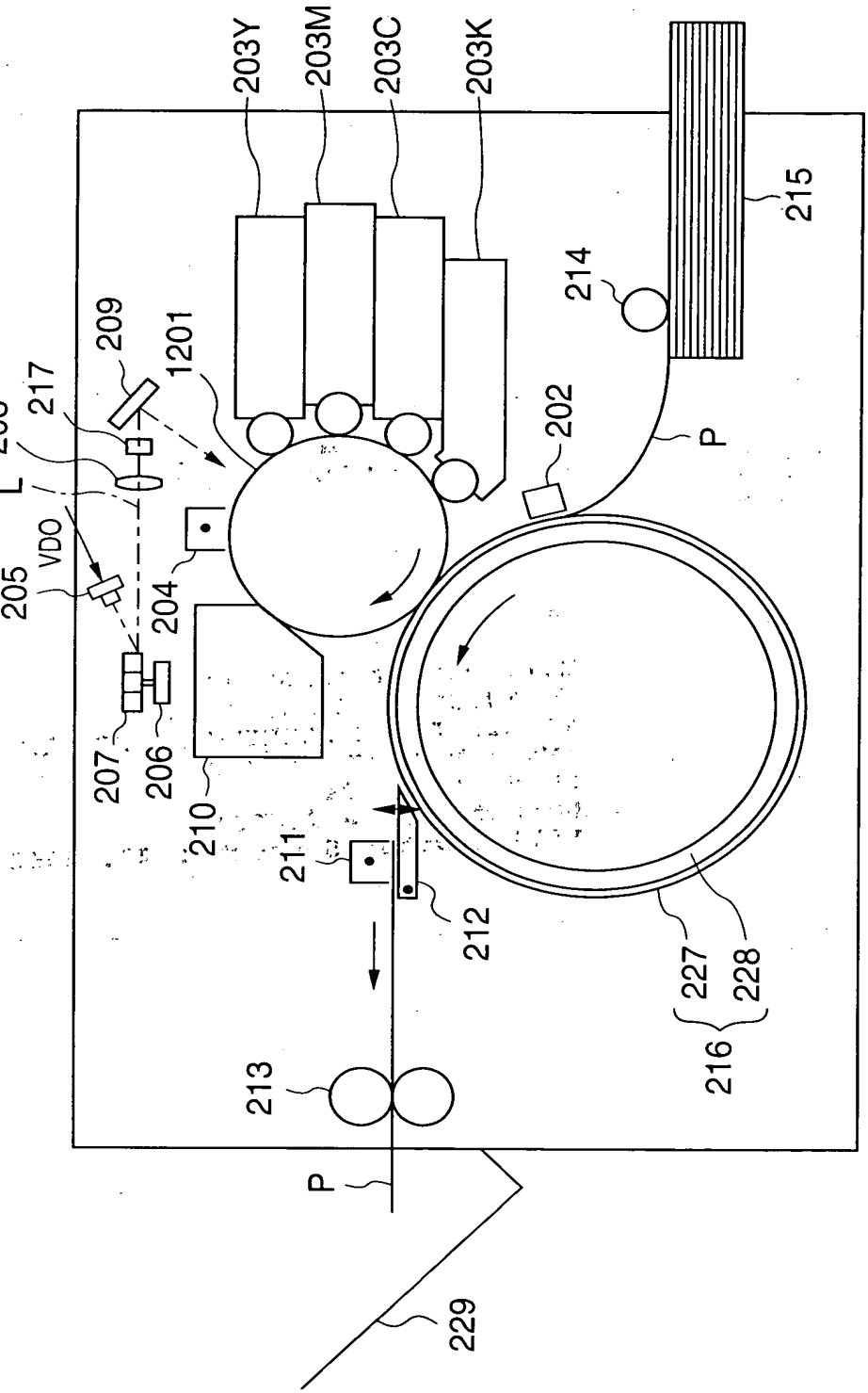

203Y
203M
203C
203K
215
214
209
1201
217
208
L
VDO
205
204
202
P
207
206
210
211
212
227
228
216
213
P
229

FIG. 19

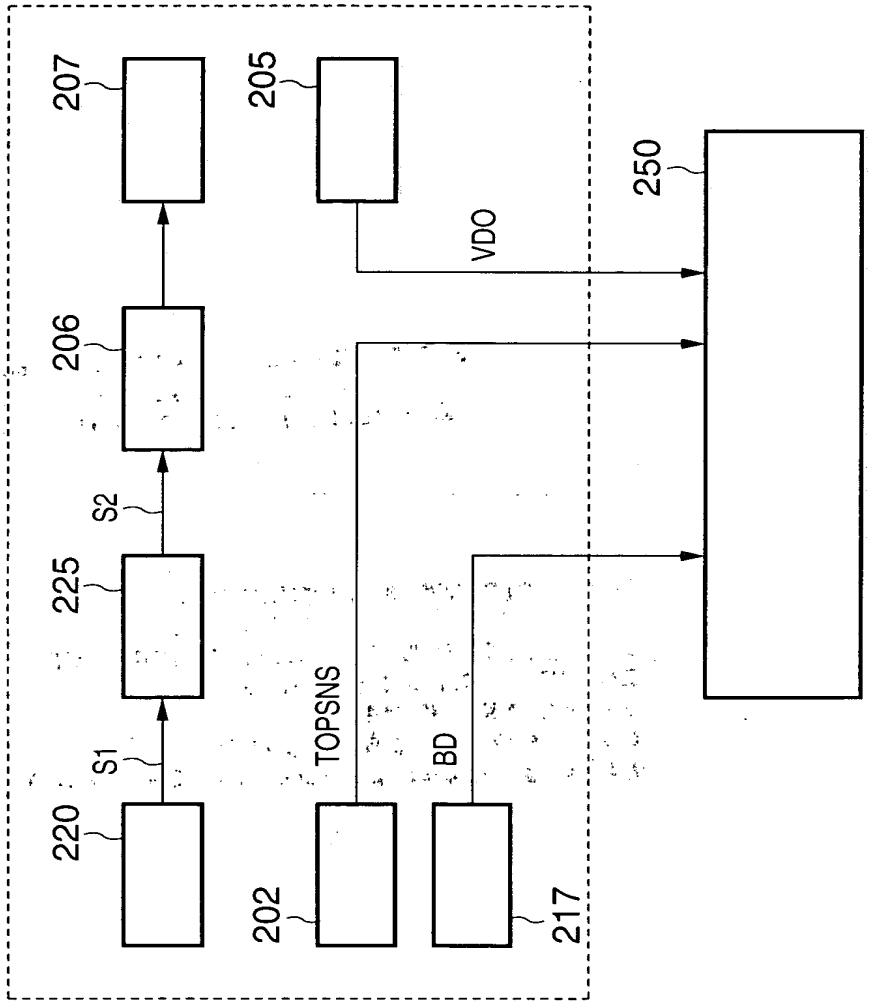


FIG. 20

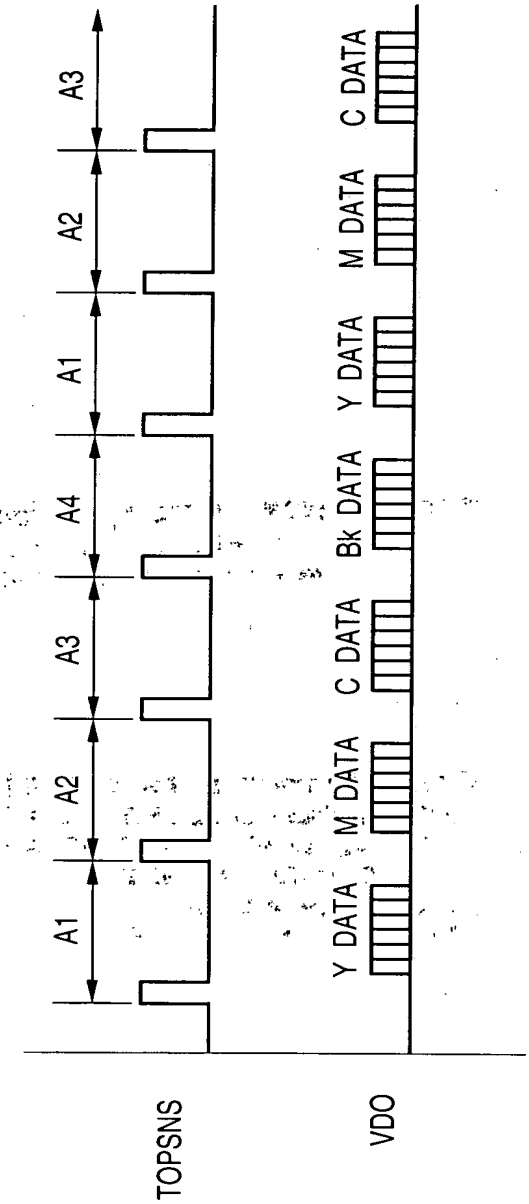

TOPSNS
VDO
A1
A2
A3
A4
A1
A2
A3
Y DATA
M DATA
C DATA
Bk DATA
Y DATA
M DATA
C DATA

FIG. 21

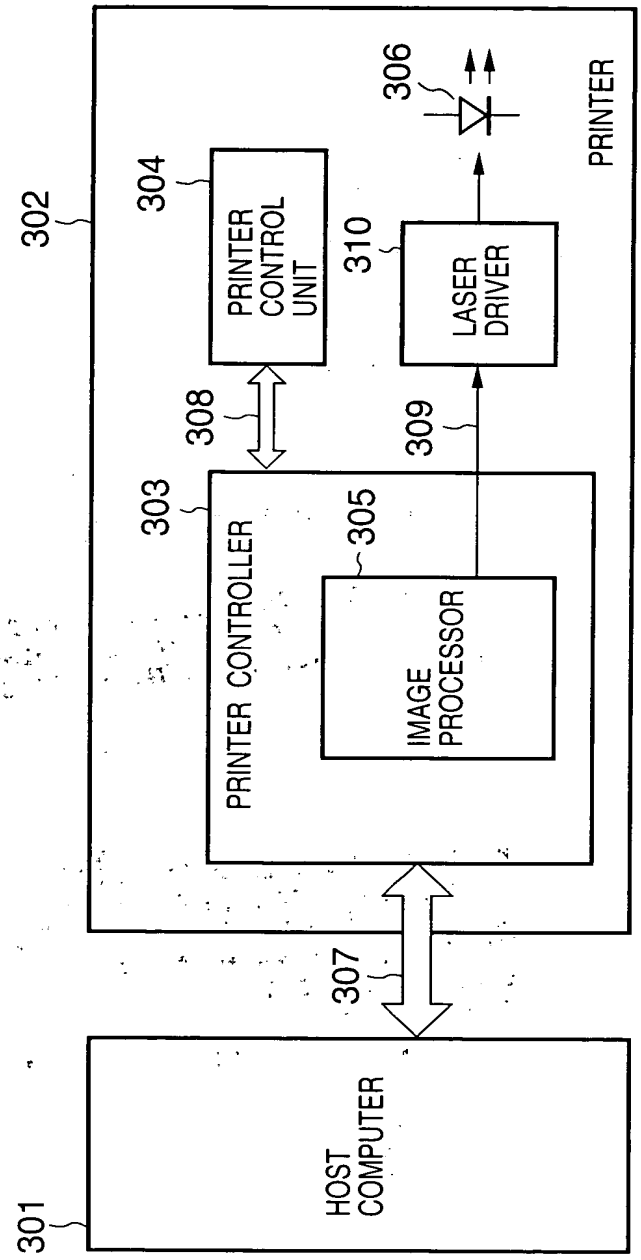

301
HOST COMPUTER
307
302
PRINTER
303
PRINTER CONTROLLER
305
IMAGE PROCESSOR
304
PRINTER CONTROL UNIT
308
309
310
LASER DRIVER
306

FIG. 22

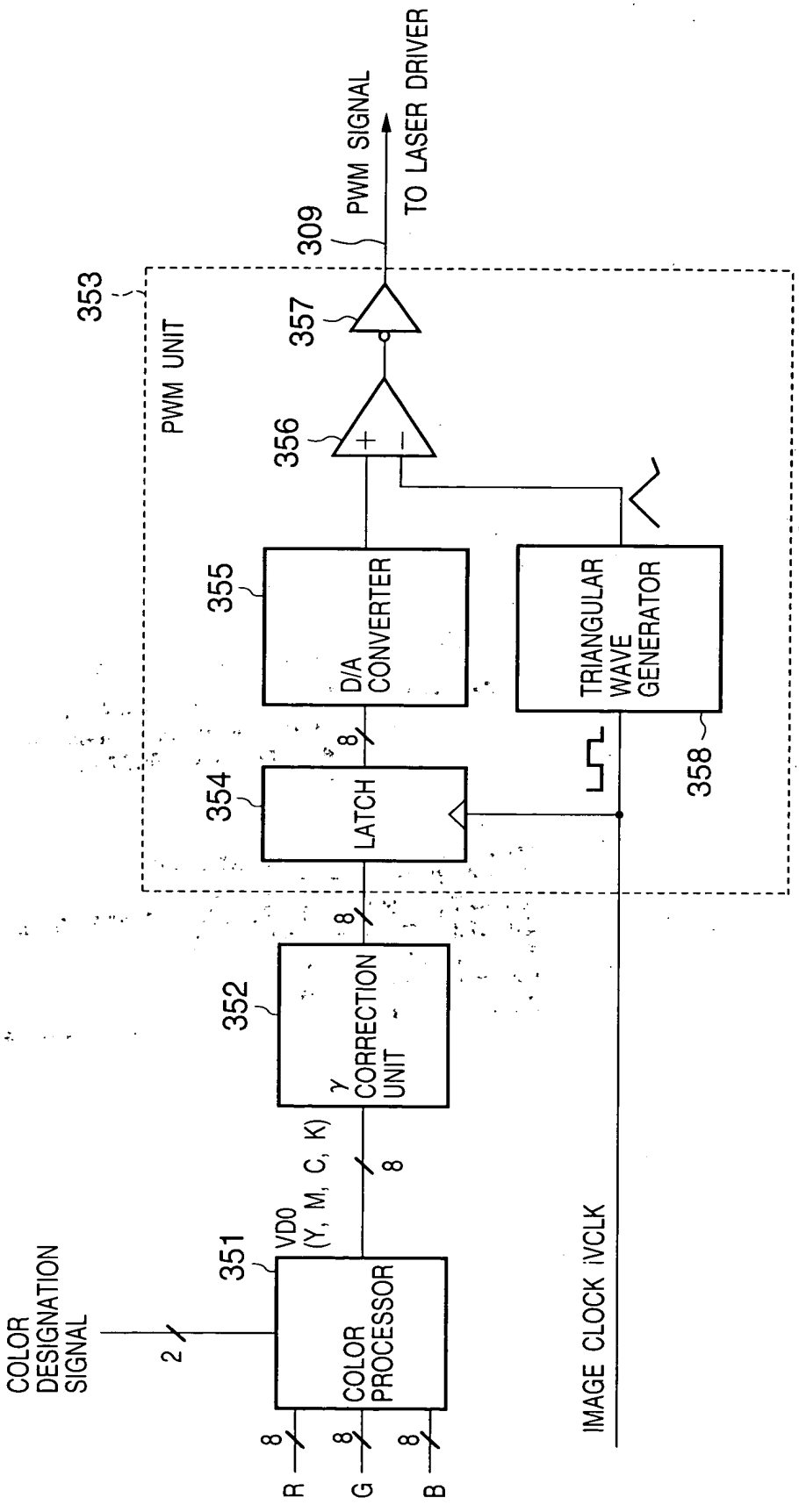
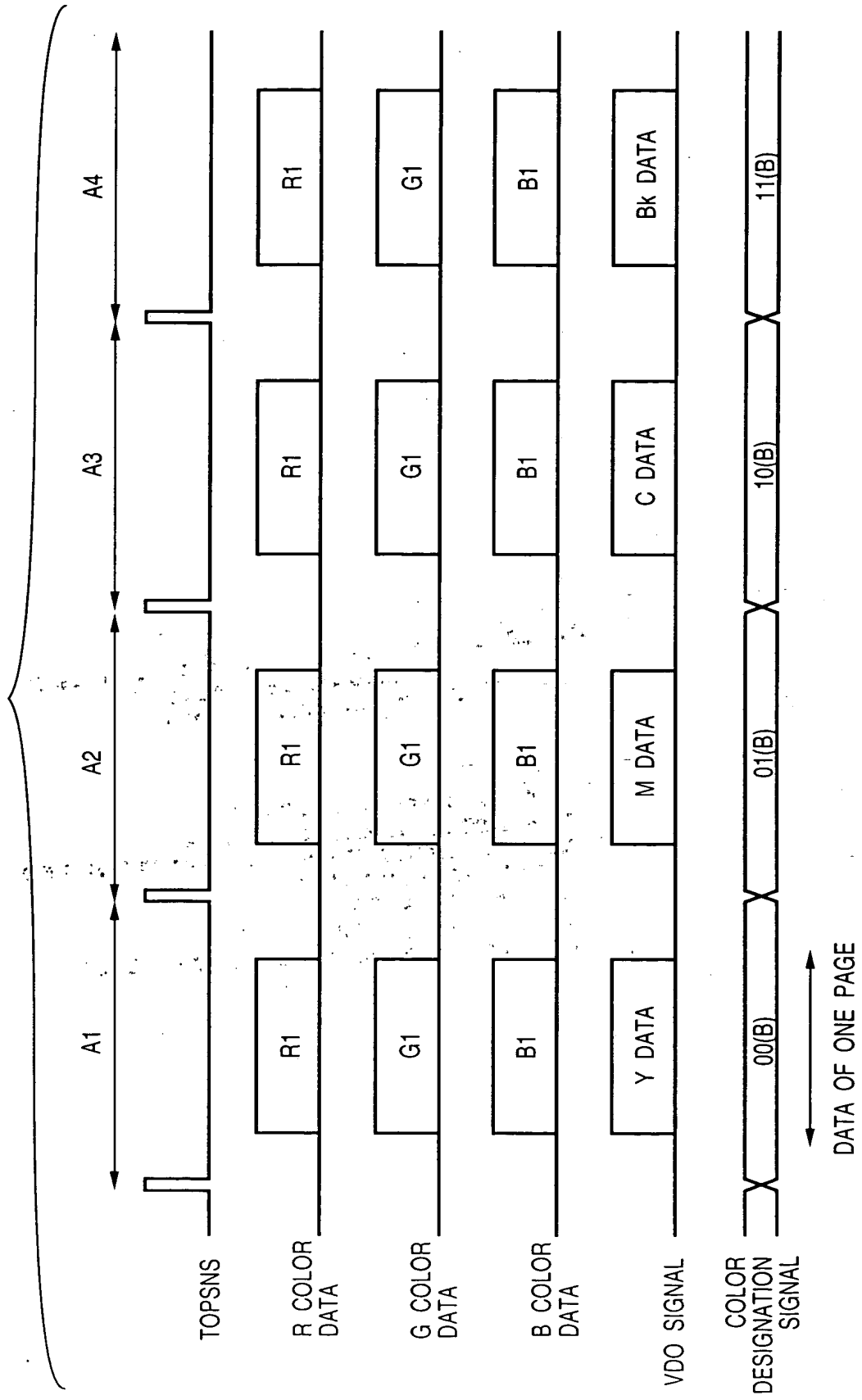

COLOR DESIGNATION SIGNAL
2
351
COLOR PROCESSOR
VD0 (Y, M, C, K)
8
352
γ CORRECTION UNIT
8
354
LATCH
8
355
D/A CONVERTER
356
357
309
PWM SIGNAL
TO LASER DRIVER
353
PWM UNIT
TRIANGULAR WAVE GENERATOR
358
IMAGE CLOCK iVCLK
R
G
B
8
8
8

FIG. 23


A1
A2
A3
A4
TOPSNS
R COLOR DATA
G COLOR DATA
B COLOR DATA
VDO SIGNAL
COLOR DESIGNATION SIGNAL
R1
G1
B1
Y DATA
M DATA
C DATA
Bk DATA
00(B)
01(B)
10(B)
11(B)
DATA OF ONE PAGE

0062260 "EP05/960

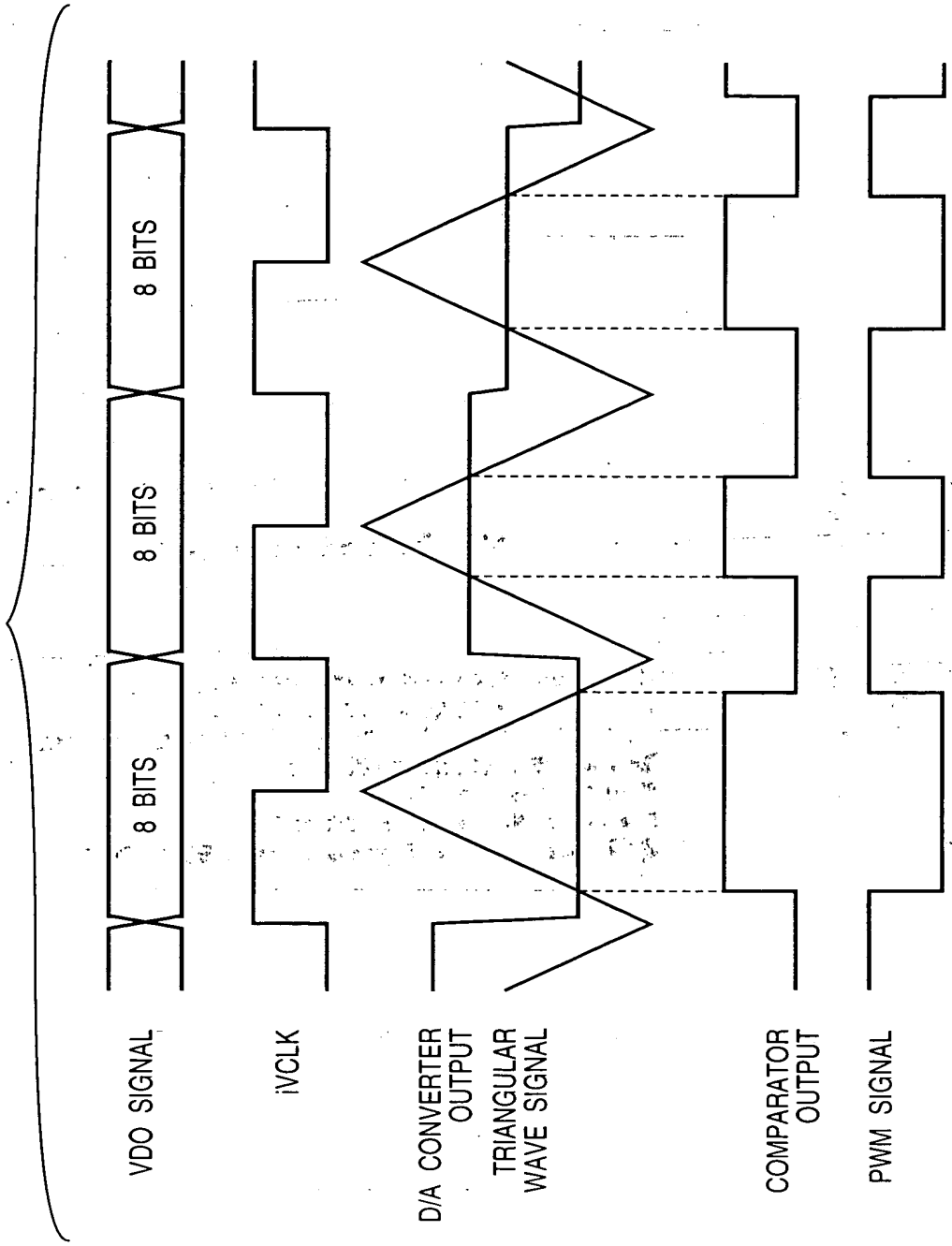



FIG. 24